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B TECH
(SEM-IV) THEORY EXAMINATION 2018-19
YARN MANUFACTURE-II

Time: 3 Hours**Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION – A**

1. Attempt **all** parts. Write answer in short. (2 x7=14)
- What is doubling and drafting process?
 - What is creel stop motion in draw-frame machine?
 - What is the benefit of auto-leveller in draw-frame machine?
 - What do you understand by comber preparatory process?
 - What do you mean by backward feeding in comber?
 - Why noil is extracted in combing process?
 - Write the function of flyer in speed frame machine.

SECTION – B

2. Attempt **any three** parts. (7 x 3=21)
- Explain the function of important parts along with the passage of material through Draw- frame.
 - What is Sliver Doubling & web doubling process? Explain briefly working of super lap / unilap machine.
 - What are the objectives of combing process? Explain briefly how combing process improve yarn characteristics?
 - Explain reversal of bobbin rail movement in speed frame with neat diagram.
 - What are the main objectives of Builder motion in speed frame? Explain how the speed of bobbin is reduced with increase in bobbin diameter.

SECTION – C

3. Attempt **any one** part. (7 x 1=7)
- Write the sequence of operations in combing cycle.
 - What are the objectives of speed frame? Explain the working of main parts of speed frame machine.
4. Attempt **any one** part. (7 x 1=7)
- Calculate the production of a Comber machine in Kg/Shift using the following data.
 Speed of comber (Nips/min) = 450, Lap Weight (gm/meter) = 60
 Feed /Nip (mm) = 5.2, Machine Efficiency (%) = 94
 Number of Heads = 8, Noil Extracted (%) = 16
 - Calculate the production of speed frame of 8 hours having 120 spindles and front roller diameter of 27mm running at 250 rpm and producing 1.2 hank of roving. Take efficiency of the machine is 90%.

5. Attempt **any one** of the following (7 x 1 =7)
- (a) Explain briefly the recent developments in modern draw-frames.
 - (b) Which type of auto-leveller is used in draw-frame? Describe the working of Auto leveller in draw-frame.
6. Attempt **any one** of the following (7 x 1 =7)
- (a) Write about various stop motions used in modern draw-frames.
 - (b) Calculate draw-frame production in kgs/shift with the following particulars
Card Sliver weight – 4.2 grams/meter, Front roller speed – 450 meters/min,
Efficiency - 93%.
7. Attempt **any one** of the following (7 x 1 =7)
- (a) Explain briefly the mechanism of imparting twist in roving in speed frame with appropriate diagram.
 - (b) Explain briefly the 3 over 3 drafting mechanism in speed frame with neat diagram.